

REMARKS

Reconsideration and allowance in view of the following remarks are respectfully requested.

No claims have been amended by this response. Claims 16-57 stand withdrawn without prejudice; Claims 1-15 are currently pending.

The Applicant thanks the Examiner for the courtesy extended during a telephonic interview which took place on May 19, 2005 between the Examiner and applicant Dr. Pedro Macedo and applicant's counsel Charles Macedo and Karl Kolbinger during which the following arguments were discussed.

The applicant also thanks the Examiner's supervisor, Carl Friedman, for the courtesy of a return voicemail to applicant's counsel in which he stated that the Office Action Summary which accompanied the May 14, 2004 Office Action erroneously indicated that the action was final. Accordingly, this response treats the May 14, 2004 Office Action as non-final.

The Examiner has rejected Claims 1-15 under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,069,960 to Fukumoto et al. ("the Fukumoto et al. Patent") in view of U.S. Patent No. 6,133,172 to Savenish et al. (the "Savenish et al. Patent"). Specifically, the Examiner has stated that it would have been obvious to make a foam glass tile such as that disclosed in the Fukumoto et al. Patent having a basis weight between 30 and 100 lbs. as disclosed in the Savenish et al. Patent. The Examiner's rejection is respectfully traversed on the grounds that the pending claims recite a heavier and therefore larger tile than that of the Fukumoto et al. Patent, and that contrary to the Examiner's position, the Savenish et al. Patent does not disclose a foam glass tile having a basis weight between 30 and 100 lbs. and teaches away from the use of heavy foam glass tiles such as those of the present invention.

The Fukumoto Patent discloses a thermally insulating foam glass tile that is coated with an outside surface to make a hard skin suitable for covering the outside of a building. The tiles disclosed are fabricated in extremely small sizes (e.g., 18 cm x 18 cm x 6 cm, see Col. 7, lines 34-40), and the interior foam material which makes up the bulk

of the tile is typically of low density resulting in a relatively light weight tile. Specifically, Col. 6, lines 43-46 of the Fukumoto et al. Patent discloses a foam glass tile with a density between 0.2 and 1.3 gm/cc (12.49 to 81.0 lb/cu. ft.). Therefore, applicant calculates that tiles of the size disclosed in the Fukumoto et al. Patent would have a weight in the range of 0.86 lbs and 5.57 lbs.

Therefore, the Fukumoto et al. Patent does not disclose a foam glass tile having a weight greater than 30 lbs. as recited in each of the pending claims. The Sevenish et al. Patent does not provide the missing element. Specifically, the heaviest surface weight basis disclosed in the Sevenish et al. Patent is 180 g/ft². Therefore, a typical 2 ft. x 2 ft. tile, such as that recited in pending claim 2, would weigh 1.58 lbs. (180 g/ft.² x 4 ft.²=720 g; 720 g=1.58 lbs.). This weight is significantly less than the minimum 30 lb. tile weight recited in the pending claims.

Furthermore, there is no teaching in either the Fukumoto et al. nor the Sevenish et al. Patents to suggest that a heavier foam glass tile, such as a tile having a weight greater than 30 lb. would be advantageous over the lighter tiles those references disclose. The Fukumoto et al. Patent discloses a light tile body with a heavier but very thin surface coating. Specifically, Col.1 lines 30-33 of the Fukumoto et al. Patent discloses that the surface coating strengthens the tiles: "The poor strength of these materials may be increased by applying a strong glaze layer 100 on such a foam glass body 102 as shown in FIG. 5" (Col. 1, lines 30-33). Moreover, "[t]he thickness of the thin coating layer is generally about 3mm or less" (Col. 5, lines 9-11). For an 18 cm tile with a 3mm coating layer, the surface volume would equal 0.0034 cu. ft., even for a density of 100 lb/cu. ft., the additional weight of the coating layer would equal 0.34 lbs. Thus, it is apparent that the disclosure of Fukumoto et al. is directed to the strengthening of lightweight tiles, and teaches away from the relatively much heavier tiles claimed in the pending application.

Similarly, the Sevenish et al. Patent teaches away from heavier tiles. For example, the Sevenish et al. Patent discloses that polyester fiber mats "have not been adopted by the industry despite their environmental advantages" because of their "high basis weight" (Col. 1, lines 56-58).


By contrast, the present application, as recited in the claims, is directed to a foam glass tile which is much heavier than that disclosed in the prior art. Rather than a mere design choice, the increased weight of the tiles was found to have an increased resistance to explosive shock and earthquake damage, and that this unexpected advantage is absent in comparatively lightweight tiles. Thus, not only does the prior art fail to disclose, alone or in combination, a tile having a weight of at least 30 lbs., but also in teaching the advantages of lighter tiles, actually teaches away from heavier tiles.

In view of the foregoing, it is believed that claims 1-15 are patentable over the cited references. Accordingly, allowance thereof is respectfully requested. If an extension of time is required to enable this document to be timely filed and there is no separate request for extension of time, this document is to be construed as also constituting a request for an extension of time under 37 C.F.R. 1.136(a) for a period of time sufficient to enable this document to be timely filed. Any fee required for such a request for extension of time and any other fee required by this document pursuant to 37 C.F.R. 1.16 and 1.17 and not submitted herewith should be charged to the deposit account of the undersigned attorney, Account No. 01-1785; any refund should be credited to the same account.

Respectfully submitted,

AMSTER, ROTHSTEIN & EBENSTEIN LLP
Attorneys for Applicant
90 Park Avenue
New York, New York 10016
(212) 336-8000

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By: 
Charles R. Macedo
Registration No. 32,781